Landings by water body are only available back to 1962. Figure 9.8 shows a definite stair step pattern in the landings for Bogue Sound. As seen in the overall landings, there was a significant increase of 219% above the normal average for bay scallops landed from 1963 to 1969. Landings continued to be fairly stable around a typical average of 20,165 bushels for the next 16 years. A significant reduction in landings of 89% below the typical average occurred in 1988 that was likely associated with the red tide event of 1987-88. Landings in Bogue Sound never consistently returned to the level seen before the red tide. The 1999 hurricane season did not have any further significant impact on bay scallop landings in Bogue Sound as was seen in the overall landings.

Preliminary results indicate that the data for Core Sound exhibit autocorrelation. Autocorrelation is often present in time series data because a particular data point can be highly dependent on previous data points. In other words, when autocorrelation is present in the data, the catch for a particular year depends on how many were harvested the previous year(s). Therefore, the analysis done for the overall landings and Bogue Sound is not appropriate for the Core Sound data because it violates the assumption that the errors are independently distributed that is needed for the analysis. Violating this assumption increases the chance of making erroneous conclusions about the data. However, some general conclusions can be drawn by examining landings throughout the time series (Figure 9.9). Landings in Core Sound appear to be sporadic showing a boom and bust pattern. Some of this sporadic pattern may be due to harvest restrictions and may illustrate the irregular nature of their presence in Core Sound. It appears that populations in Core Sound were generally able to rebound from years in which scallops were harvested in low abundance, including a recovery after the red tide event. The red tide had a more devastating effect on Bogue Sound than Core Sound. Core Sound landings were depressed from 1987 to 1992, but appear to have rebounded in 1993. However, landings in Core Sound have not risen above 2,200 bushels since 1998, which may be due to the 1999 hurricane season.

Together, Bogue and Core sounds make up the majority of the landings averaging 92% of the total from 1962 to 2004. Historically the overall landings were driven by Bogue Sound, which made up an average of 62% of the total harvest. However, after the red tide decimated bay scallop populations in Bogue Sound, Core Sound became the dominant water body with an average of 66% of the total harvest until the 1999 hurricane season. After that time, landings in both water bodies reached extremely low levels.